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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/583,201      | 05/30/2000  | Kendall F. Tidwell   | 10992479-1          | 1466             |

22879 7590 05/26/2004

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INTELLECTUAL PROPERTY ADMINISTRATION  
FORT COLLINS, CO 80527-2400

EXAMINER

MONESTIME, MACKLY

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2676

9

DATE MAILED: 05/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/583,201

Applicant(s)

TIDWELL ET AL.

Examiner

Mackly Monestime

Art Unit

2676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2004.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 15-28 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 15-28 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

***Response to Amendment***

1. The amendment received on March 12, 2004 has entered and carefully considered. Claims 1-14 are canceled, claims 15-23 and newly added claims 24-28 are still pending in the application.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 15-17, 19-21 and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang et al in view of Yoneda et al (US Patent No. 6,249,449), and in further in view of Maeda (US Patent No. 6,067,382).

4. Huang et al and Maeda were cited in the last office action.

5. As per claims 15-17, 19-21, 24 and 27, Huang et al substantially disclosed the invention as claimed including a method for writing clear data to a frame buffer of a graphics display device comprising: memory region subdivided into a plurality of sub-regions (Fig. 5, Item No. 134), each said sub-region comprising a plurality of storage elements (col. 6, lines 40-49; col. 16, lines 11-14); and further disclosed that a memory controller which receives instructions to read pixel data from, and write pixel data into, the frame buffer, and further translate the address of

the pixel data and output appropriate control and address signals to the frame buffer for accessing the desired pixel data (col. 8, lines 31-38).

Huang et al did not disclose the steps of writing clear data concurrently to each one of said plurality of sub-region. However, Yoneda et al disclosed an associative memory block that is divided into a plurality of associative memory subblocks, wherein the contents of the memory are erased when writing new data to the memory (col. 2, lines 58-64). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have utilized the controller taught by Yoneda et al into the system of Huang et al because doing so would provide an associative memory which is required to process large capacity data at high speed and comprises a plurality of associative memory subblocks, and is also capable of not only managing an invalid memory word whose contents have been erased but also efficiently encoding its address.

The combination did not disclosed the steps of: a processor to determine dimension and a position of at least one image on said graphic display device, wherein said at least one image is to be cleared. However, Maeda disclosed a processor to determine dimension and a position of at least one image on said graphic display device, wherein said at least one image is to be cleared (col. 24, lines 34-35; col. 29, lines 10-15; lines 23-40 and col. 32, lines 58-65). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the cited references because doing so would provide a system being able to identify the position and the location of the data within the sub-regions so that such data may be appropriately processed by the graphics system.

6. As per claims 25-26, Huang et al disclosed that the memory region is subdivided into consecutive and adjacent sub-regions (col. 14, lines 11-15); and further disclosed that the memory region is subdivided into sub-regions of different dimensions (col. 4, lines 1-2; col. 8, lines 64-67; col. 9, lines 1-3).

7. Claims 18, 22-23 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang et al in view of Yoneda et al and Maeda as applied to claims 15-17 and 21 above, and in further in view of Deering et al (US Patent No. 5,544,306).

8. Deering et al was cited in the last office action.

9. As per claims 18 and 22; the combination did not disclose the steps of associating a plurality of location identifiers wherein one location is associated with each one of said plurality of subregions residing in said frame buffer and writing clear data begins at said plurality of sub-region identified by said plurality of location identifiers. However, Deering et al disclosed a plurality of dirty tags associated to a plurality of DRAM banks; and a rendering controller employs color expansion and writes common color value to many pixels in the DRAM banks A-D (col. 19, lines 6-25; col. 20, lines 55-67; col. 21, lines 1-6). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the cited references because doing so would provide a system being able to identify the data within the sub-regions so that such data may be appropriately processed by the graphics system.

10. As per claims 23 and 28, the combination did not disclosed the steps of: a processor to determine dimension and a position of at least one image on said graphic display device, wherein said at least one image is to be cleared. However, Maeda disclosed a processor to determine dimension and a position of at least one image on said graphic display device, wherein said at

least one image is to be cleared (col. 24, lines 34-35; col. 29, lines 10-15; lines 23-40 and col. 32, lines 58-65). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the cited references because doing so would provide a system being able to identify the position and the location of the data within the sub-regions so that such data may be appropriately processed by the graphics system.

***Response to Arguments***

11. Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mackly Monestime whose telephone number is (703) 305-3855. The examiner can normally be reached on Monday to Thursday from 7:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella, can be reached on (703) 308-6829.

**Any response to this action should be mailed to:**

Commissioner of Patent and Trademarks  
Washington, D.C. 20231

**or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

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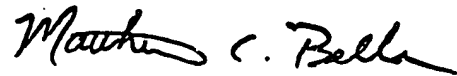
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Mackly Monestime



Patent Examiner

May 18, 2004



MATTHEW C. BELLA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600